

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

<p>Applicant's or agent's file reference see form PCT/ISA/220</p>		<p>Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)</p>	
<p>International application No. PCT/GB2004/005432</p>		<p>International filing date (day/month/year) 20.12.2004</p>	<p>Priority date (day/month/year) 23.12.2003</p>
<p>International Patent Classification (IPC) or both national classification and IPC B63B3/38</p>			
<p>Applicant HOWES, Jonathan Sebastian</p>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA:</p> <p> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465</p>	<p>Authorized Officer</p> <p>Nicol, Y</p> <p>Telephone No. +49 89 2399-2984</p> <p></p>
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material:
 in written format
 in computer readable form
 - c. time of filing/furnishing:
 contained in the international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1,2,5,8-20
Inventive step (IS)	Yes: Claims	3-4,6-7
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

PCT/GB2004/005432**Re Item V.****1. The following documents are referred to in this communication:**

D1: GB-A-2 177 353 (BASIL CAMERON RENNIE; CHRISTOPHER JOHN RENNIE) 21 January 1987 (1987-01-21)
D2: DE 43 44 740 A1 (PETERS, GUENTER J., DIPL.-ING., 31139 HILDESHEIM, DE) 29 June 1995 (1995-06-29)
D3: US 2003/040236 A1 (BURNS STEVE DANIEL ET AL) 27 February 2003 (2003-02-27)
D4: US-B1-6 467 422 (ELMS ANTHONY RICHARD) 22 October 2002 (2002-10-22)

2. INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is **not new in the sense of Article 33(2) PCT**.

Document D1 discloses (the references in parenthesis applying to this document):

a vessel for travelling on water, comprising a hull means (10) and a keel (11) comprising a member depending from the hull means, the member comprising two limbs (12, 31) each depending from a respective lateral side of the hull means, the two limbs defining at least in part an enclosed flow path extending in a bow to stern direction, the enclosed flow path being configured to allow water incident on the vessel to flow over inner and outer surfaces of the limbs, whereby the limbs each have a zero-lift surface which is angled to generate in use a component of hydrodynamic force directed away from the enclosed flow path.

2.2 Documents D2-D3 discloses also all the features of claim 1.

3. DEPENDENT CLAIMS

Dependent claims 2-20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step in the meaning of Article 33(2) and (3) PCT (see indications of the search report).

Re Item VII.

The features of the claims are not provided with **reference signs** placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII.

The wording of claim 18 "between the leading edge of the part and a rearmost part of the hull means" is unclear (Article 6 PCT).